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Jim Wilson is lined up to talk on the ***Van Bree site, a Western Basin site in Southwestern Ontario*** on April 12th. **Please note** that the April Speaker Night will be the last meeting of the Spring session.

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As always, our meeting will be held at 8 pm at the London Museum of Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city.

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Standing Tree Site (BcGw-63), An Early Paleo-Indian Occupation Near Barrie, Ontario

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This report discusses the excavation and analysis of the Standing Tree site (BcGw-63), an Early Paleo-Indian site near Barrie, in southcentral Ontario (Figure 1). Standing Tree was discovered when a channel flake was recovered from the subsoil surface in a stripped area around a small tree (Figures 2 and 3). Channel flakes are unique flakes made when flutes were removed from Early Paleo-Indian spearpoints (Ellis and Deller 1990). The topsoil immediately surrounding the tree had not been stripped suggesting that a small portion of this site remained intact. Nine one metre squares were excavated in this area (Figure 3) in June of 1998. A second channel flake was found during the Stage 4 excavation, but no tools or other diagnostic artifacts were recovered.

LOCATION

Standing Tree is located in the Simcoe Lowlands physiographic region (Chapman and Putnam 1984: 177-182). The Simcoe Lowlands border Lake Simcoe and extend to Georgian Bay and would have been flooded during the higher stages of glacial Lake Algonquin (Chapman and Putnam 1984: 181). Kempenfelt Bay, located on the west side of Lake Simcoe, would have extended westward during times of higher glacial lakes, with numerous shorelines leading to a series of swamp and bog areas (Chapman and Putnam 1984:181). This describes the subject property, which is located on the south side of the valley and has a series of relict beach shorelines leading to a less elevated, swampy area. The soil is comprised primarily of beach sand topsoil with packed sand subsoil. Standing Tree was located on the shoreline of what would have been from either glacial Lake Algonquin (Deane 1950) or glacial Lake Ardtrea (Jackson, Ellis, Morgan and McAndrews 2000).

FIELD METHODOLOGY

A five-metre grid was established over the Standing Tree site. Each five-metre square was divided into 25 one-metre sub-squares with each excavated unit identified by the easting and northing coordinate of its southwest corner. Because of the recovery of a channel flake, the topsoil from each square was shovelled into a 3 mm mesh screen to recover artifacts. After the ploughzone was completely excavated, the bottom of each square was trowelled and the subsoil examined for features and/or post moulds. None were found at Standing Tree. The topsoil stripping that surrounded the tree imposed the excavation boundary.

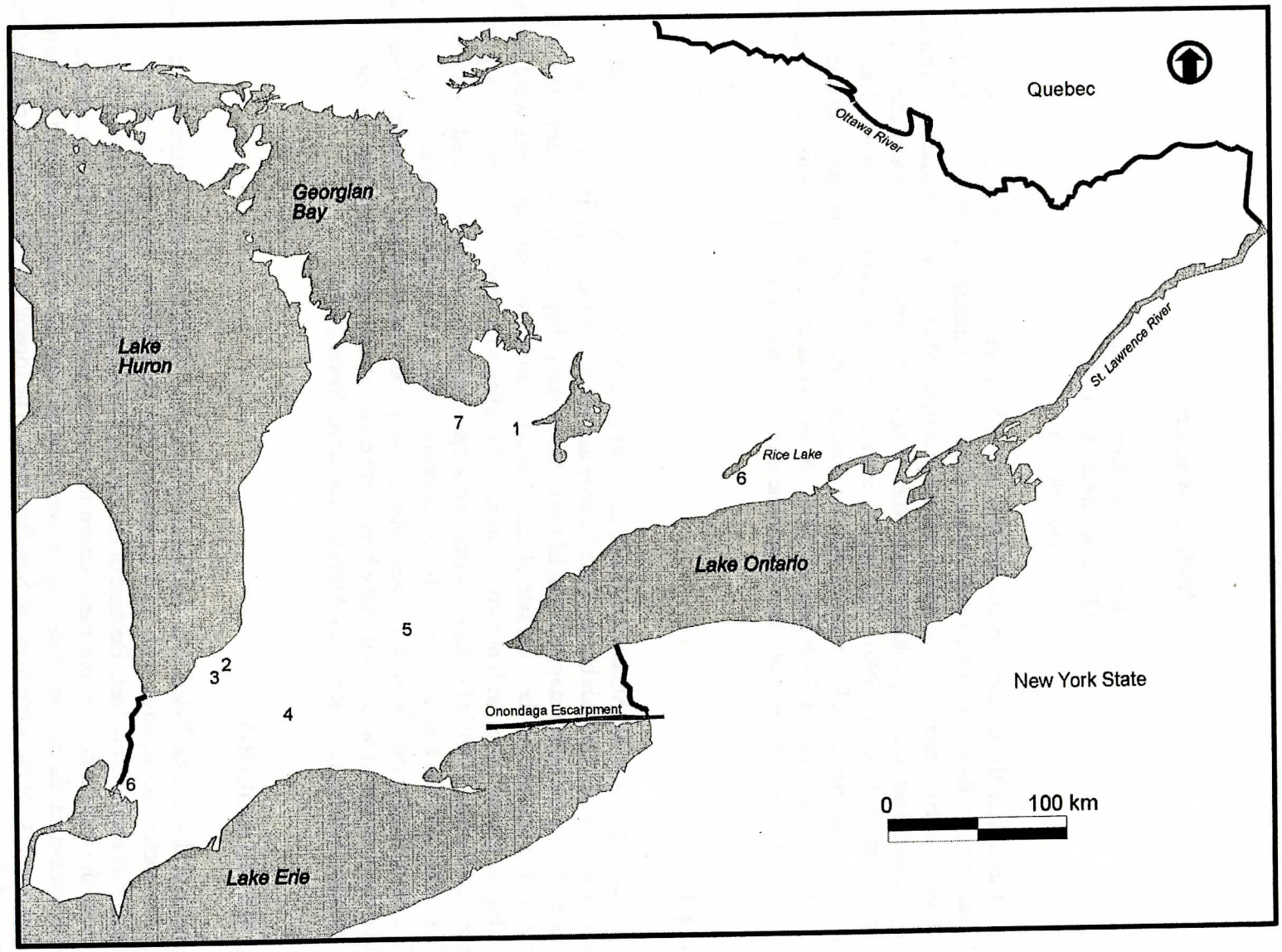

Figure 1: Location of Standing Tree (1), Parkhill (2), Thedford (3), Crowfield and Culloden Acres (4), Alder Creek (5), Sandy Ridge and Halstead (6) and Fisher (7) sites. Also indicated is the location of the Onondaga Escarpment.

Figure 2: Field photo of Standing Tree excavation.

ARTIFACT ANALYSIS

A total of 76 debitage weighing 10.3 grams were recovered from Standing Tree. The frequency of flakes per square ranged from zero to 25 (Figure 3). All of the debitage is of Onondaga chert. Onondaga chert is generally obtained south of the Onondaga Escarpment and north of Lake Erie (Eley and von Bitter 1989: 17; Figure 1). For analytical purposes, the debitage was divided into the following types: shatter, decortication, primary, bipolar, bifacial thinning, edge trimming, platform rejuvenation, scraper retouch, channel and fragments. These flake types represent fairly distinct stages in the reduction sequence. To ensure that each flake was only counted once, only those flakes with a striking platform were typed and those without classified as fragments. Only the flake types recovered from Standing Tree are included in Table 1. Because 3 mm mesh screen was used, many of the flakes are very small. To obtain a better idea of overall flake size, the debitage was weighed to .01 of a gram. The debitage sample is predominated by flake fragments and biface edge trimming flakes, with a lower frequency of biface thinning flakes.

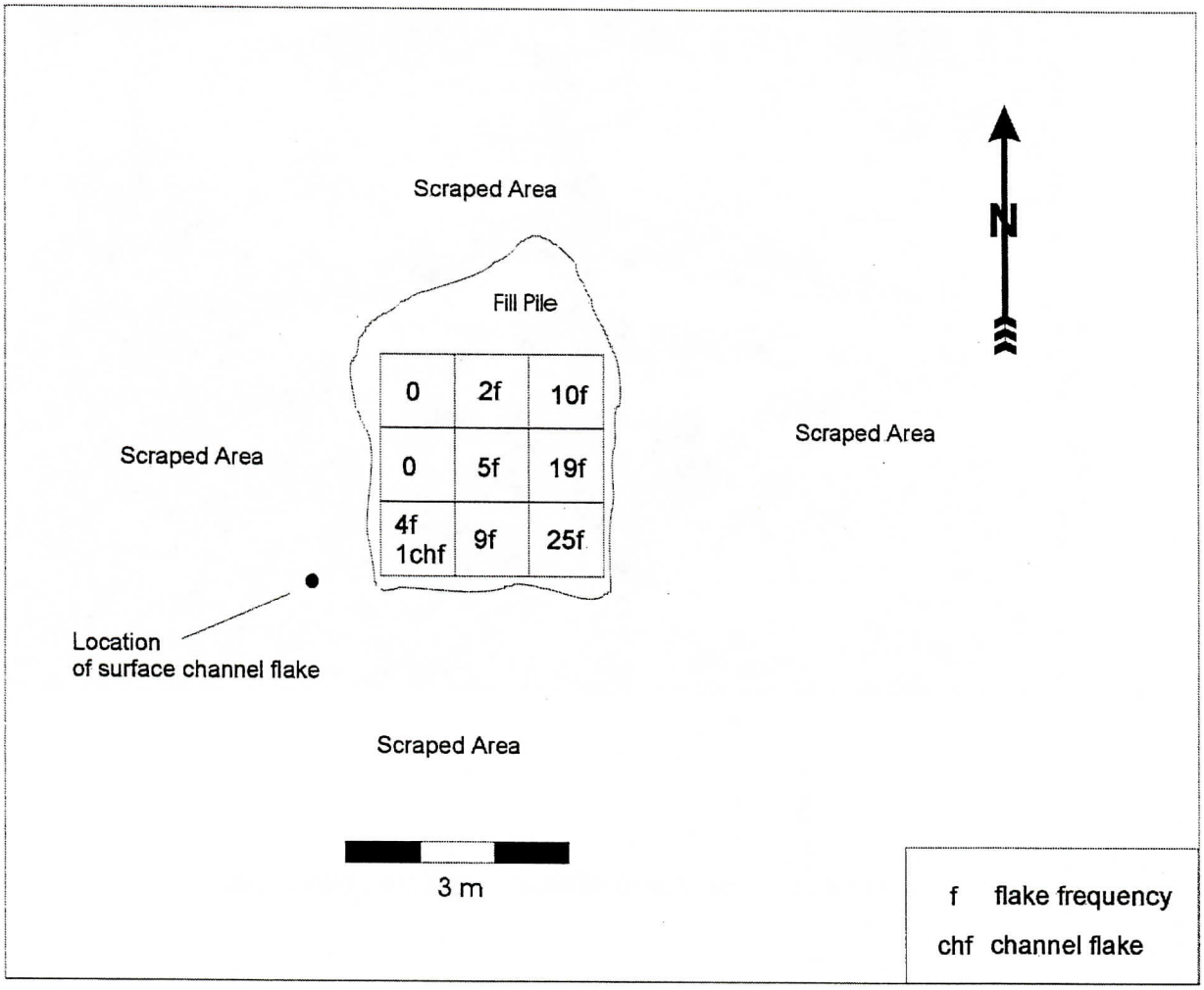

Figure 3: Excavation of the Standing Tree site (BcGw-63).

For comparative purposes, the debitage was also screened through 6 mm mesh screen during analysis. This allows the results to be compared to other excavated Early Paleo-Indian sites from Ontario. If a 6 mm mesh screen was used for analysis, only 25 flakes would have been recovered from Standing Tree. The assemblage would have been dominated by fragments and biface thinning flakes. The frequency of edge trimming flakes would have been reduced to one.

The surface collected channel flake (Figure 4A) is a midsection fragment with both the proximal and distal ends missing. The remaining fragment is 32.6+ mm long, 12.1 mm wide and 1.6 mm thick with a weight of 0.76+ grams. The second channel flake (Figure 4B) is a midsection and distal end

fragment from square E200:N498. The distal end indicates that this is an "outre passe" or over-shoot because the biface tip is still attached. The striking platform is missing from this specimen. This flake fragment is 40.9+ mm long, 13.3 mm wide and 1.8 mm thick at the midsection and 18.2 mm wide and 4.5 m thick at the biface tip. The biface tip is plano convex in cross-section, displays very fine flaking and weighs 1.70+ grams. These channel flakes exhibit similar manufacturing technique with parallel flake scars extending along the dorsal surface of each. They are clearly biface fluting flakes.

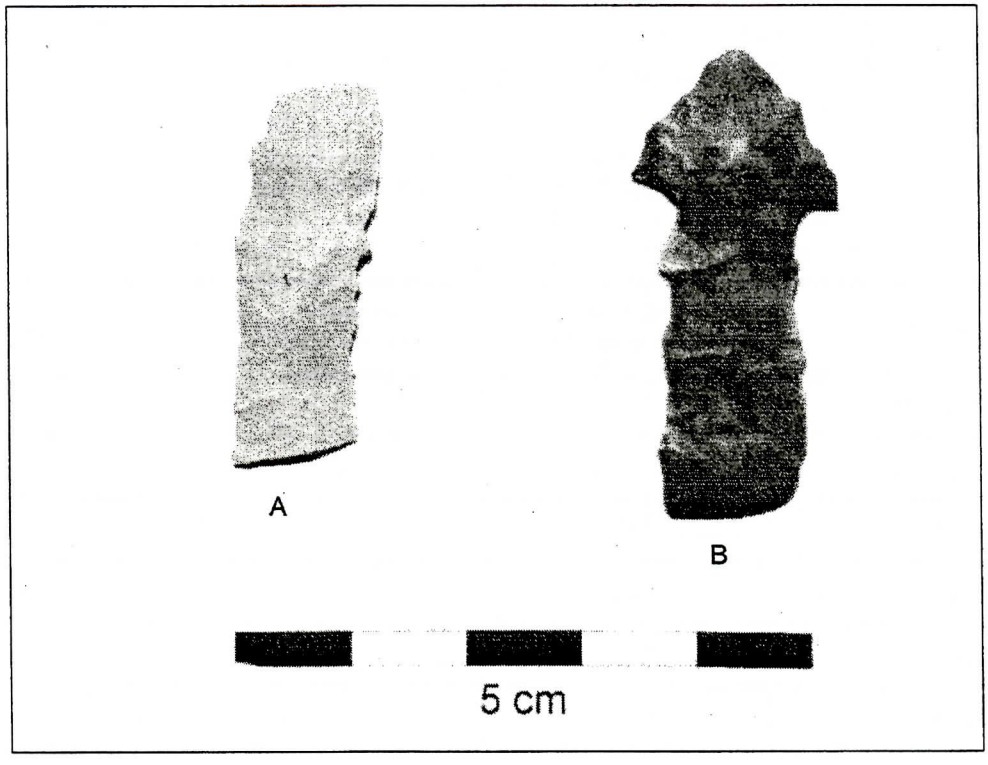

Figure 4: Channel flakes from Standing Tree.

DISCUSSION

Given the recovery of two channel flakes, Standing Tree is interpreted as an Early Paleo-Indian site. In southern Ontario the early Paleo-Indian occupation occurred while the glaciers receded between

11,000 and 10,400 B.C. (Ellis and Deller 1990: 44). There are three types of fluted points found in southern Ontario: Barnes, Gainey and Crowfield, however some Holcombe point also have flutes removed from one surface. Channel flakes from the Barnes point type Thedford II site range from 8-16 mm in width (mean 11.8 mm) and range in thickness from 1-2.5 mm (mean 1.8 mm) (Deller and Ellis 1992:81, Table 42). The channel flake mean width from four Gainey sites ranges from 11.4 mm to 16.5 m; thickness ranges from 1.7 to 2.3 mm (Jackson 1998:105, Table 34). Crowfield channel flakes from the Alder Creek site have a mean width of 10.79 mm (Timmins 1994); those from the Bolton site also have a mean width of 10.79 mm (Deller and Ellis 1992). Three narrow channel flakes were also recovered from the nearby Fowler site (Woodley n.d.). Channel flake width and thickness means from these and other early Paleo-Indian sites in Ontario are summarized in Table 2. The channel flakes from Standing Tree are most comparable in size to those from Thedford II and Parkhill suggesting that Standing Tree is a Parkhill site. This interpretation is accepted since a number of Early Paleo-Indian sites in the vicinity, including the Fisher site located near Collingwood (Storck 1997), are of this complex.

Table 1: Debitage from Standing Tree

Flake Type	Frequency (3 mm mesh)	Frequency (6 mm mesh)	Weight (grams)
Decortication	1	1	0.83
Primary	1	1	0.71
Biface Thinning	12	10	2.84
Edge Trimming	23	1	0.79
Channel	2	2	2.46
Fragments	37	10	2.67
Total	76	25	10.30

Given that only a remnant of Standing Tree remained after the topsoil was stripped, the overall site size cannot be estimated. No indicators as to the season or duration of occupation were recovered. Standing Tree is located near and at a slightly higher elevation than a cedar swamp. During the site occupation, this swamp would have been open water as part of a glacial lake. The surrounding hillsides would presumably have been spruce or open forest (Karrow and Warner 1990).

It is interesting to note that this site is located on the shore of what would have been a narrow section of glacial Lake Algonquin/Ardtrea. East of the site the lake would have expanded to cover most of

Barrie and Kempenfelt Bay of Lake Simcoe. West of the site, the lake would have expanded to cover all of what is now the Minesing Swamp. This suggests that the site location may have been chosen to access migratory caribou herds as they crossed the narrows. Caribou remains have been recovered from other Paleo-Indian sites in the Lower Great Lakes (e.g., Cleland 1965; Storck and Speiss 1997), so this interpretation has some merit. This site location is similar to that noted in the Northwest Territories (personal observation 1987), where sites are located close to narrows to provide easy access to woodland caribou crossing narrow lakes. In fact, caribou would on occasion walk into our camp before or after crossing the lake.

Table 2: Channel flake width and thickness means from select Ontario sites

Complex	Site	N	Mean Width	s.d.	Mean Thickness	s.d	Reference
Parkhill	Thedford II	24	11.8	2.34	1.8	0.33	Deller and Ellis 1992a: 81, Table 42
Parkhill	Parkhill	86	10.96	1.95	1.79	0.388	Ellis and Deller 2000: 139 Table 7.4
Parkhill	Standing Tree	2	12.7	-	1.7	-	this report
Crowfield	Alder Creek	9	9.0	1.5	1.4	0.3	Timmins 1994: 193, Table 3
Crowfield	Bolton	24	10.79	3.06	-	-	Deller and Ellis 1992b
Gainey	Culloden	4	13.53	2.34	-	-	Jackson 1998: 105, Table 34
Gainey	Murphy	3	12.3	-	2.3	-	Jackson 1998: 105, Table 34
Gainey	Halstead	2	16.5	-	2.3	-	Jackson 1998: 105, Table 34
Holcombe	Fowler	3	8.93	-	1.27	-	Woodley n.d.

CONCLUSIONS

Standing Tree was badly disturbed by topsoil stripping prior to excavation, leaving only what is presumably a small remnant of the original site. Because of these conditions, little can be said about this site other than to note that it is an Early Paleo-Indian site located on a glacial lakeshore.

The Standing Tree site is a Late Paleo-Indian campsite, ca. 11,000 and 10,400 B.C, located on a relict beachline west of Barrie. The overall size cannot be inferred because of topsoil stripping. The

preferred material for tool manufacture was Onondaga chert. No indicators of site function or seasonality were recovered. Given the disturbance to the site, few inferences can be made about site size or adaptations to specific environments. At best, the Early Paleo-Indian occupation at Standing Tree suggest a focus towards the glacial lake shore, perhaps where caribou herds migrated across the narrow section of the glacial lake.

ACKNOWLEDGEMENTS

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Some Sites and Artifacts I Have Known:
A Small Paleo-Indian Site in the Niagara Peninsula

Chris Ellis

The Ward site (AgGu-17) is located just south of Vineland, Ontario in the Town of Pelham, Regional Municipality of Niagara. It was located by Bill Parkins, then a geology student at Brock University, in the early 1970's as part of his interest in locating and determining the sources of chert used by the precontact inhabitants of the area (e.g. Parkins 1977). Bill had visited the site on two occasions and surface collected three artifacts on Onondaga chert. As will be detailed below, they included two definite Paleo-Indian tools: half of a fluted point base and the tip of a biface preform probably used as a knife. Bill reported the site to me in 1977 when I was conducting a site survey in the Niagara Peninsula. I conducted test excavations at the site over a four day period in August of that year (Ellis 1979a). As of this date, and if my memory is not failing me, it still remains the only confirmed fluted point site in the peninsula. Hence, and even though a more lengthy report was submitted as part of the required 1979 archaeological licence report on my survey, it is worth placing what is known about the site into the published record.

The site is situated on a ridge which extends out from a flat terrace overlooking Fifteen Mile Creek some 250 metres to the south. The ridge is bordered by a modern road cut on the west and a gulley eroded into the terrace on the east. Test-pitting and visible surface debris indicates it covers about 625 m^2. The material is distributed mainly on the terrace but debris seems to extend slightly down the slope on the south which eventually leads down to the Fifteen Mile Creek floodplain.

The test excavations were designed to try and determine the extent of the site, to see if there was any evidence of subsoil features, and to collect a sample of artifacts which could provide clues to site activities and whether or not the site was single or multi-component. An east to west base-line was established at the site which was arbitrarily designated 1000N and a series of one metre squares were triangulated in off that base line with one of the north south lines arbitrarily designated 40E. Excavated squares were referred to by the co-ordinates of their intersecting grid lines at the southwest corner. In all, 21 one metre units were excavated. Fifteen of these were placed in the main site area (Figure 1) and an additional six units were dug some distance to the east (997N/100E; 991N/102E; 991N/95E; 1000 N/95E; 1000N/109E; 1006N/99E). Only one small flake was found in these last six squares (in 997N/100E) and therefore, these squares are excluded from consideration in the following analyses.

Excavation involved removing the ploughzone and the cleaned subsoil surface for evidence of features. All of the soil excavated was passed through 1/4" mesh. In some cases screening was difficult due to the high clay content. No excavation was conducted in the subsoil except for a single small feature noted at the juncture of squares 969N/41E and 969N/42E. The feature was small and egg-shaped in plan with the narrow end of the outline pointing towards the west. It measured 35.7 cm east to west by 25.5 mm north to south and in plan was a shallow (2.5 cm) basin. The feature was

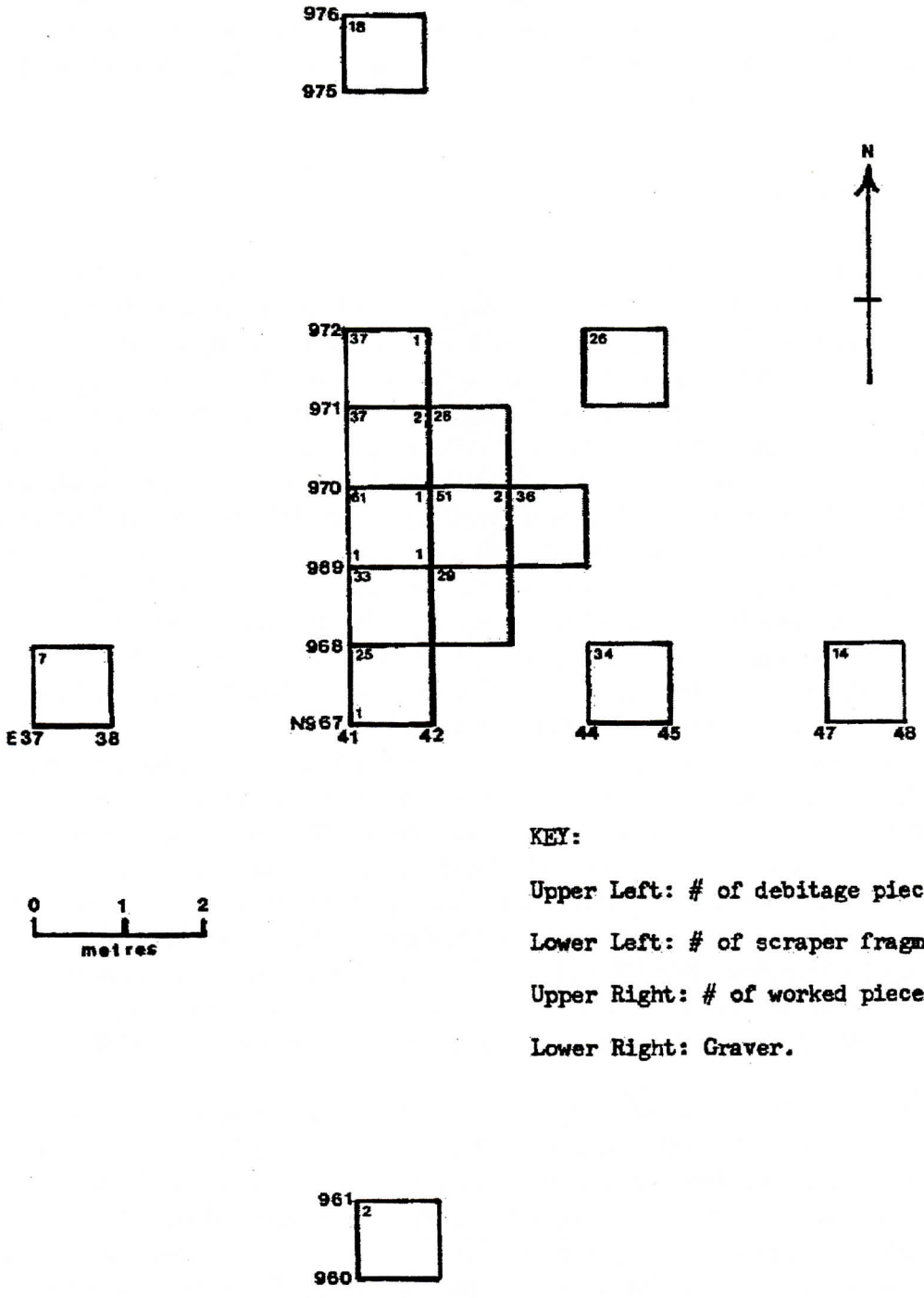

Figure 1: Map of Excavated Test-Units, Main Site Area, Ward Site.

entirely filled with a hard dark brown sand which contrasted markedly with the surrounding red clay subsoil. Although its regular outline suggested it to be cultural in origin, no cultural materials were found in the feature. On the other hand, the greatest concentration of lithic debris was situated in the ploughzone above and around this feature.

TOOLS/PREFORMS

All of the cultural material recovered from the site is lithic tools or debris on Onondaga chert. As previously noted, three artifacts were recovered by Bill Parkins through surface collection. Most notable is half the base of a fluted point (Figure 2-3). This particular segment measures 25 mm long by 16 mm wide by 5 mm thick and had a basal concavity which was around 4 mm deep. Based on the shape of the basal concavity, and assuming its apex was well-centered on the completed point, the base of the complete point was about 22 mm wide. The one preserved edge indicates the point was roughly parallel-sided. On one face it exhibits a potlid scar and the irregular broken lateral edge is heat fractured suggesting the item was originally a complete base which broke due to heat exposure after discard. This item is also on a dark blue Onondaga chert. The face shown on Figure 2-3 was apparently multiple fluted while the opposite face had a single flute. The parallel-sided nature of the point and the estimated basal width (e.g. >20 mm) most closely approximates Gainey points among those Ontario types of points which have been named (see Deller and Ellis 1992; Ellis and Deller 1997). On the other hand, there are points from the Great Lakes or adjacent areas such as those from the Paleo Crossing site in Ohio (Brose 1994), Shoop in Pennsylvania (Witthoft 1952) and Hiscock in New York state (currently being analysed by this author; see Gramly 1988: Figure 9-1) which are also consistently parallel-sided with bases over 20 mm. Yet, these points seem to differ from classic Gainey points in that they have relatively shallow concavities, do not have bases much above 20 mm wide and are relatively poorly (i.e. short) fluted. Investigators such as Brose (1994) and Witthoft (1952) have called these "Remington" or "Enterline" type points respectively while other have called them "Clovis" (e.g. Stoltman 1993). The Ward site example is too fragmentary to determine flute length but the estimated basal width and concavity depth might suggest it would fit more comfortably in those other categorizations. However, it is difficult to make such fine distinctions based on a single example and a very fragmentary one at that.

A second item is the fore-section of a very well made biface preform which apparently had a blunted tip and relatively parallel-sides (Figure 2-1). It measures 36mm long by 25 mm wide by 6 mm thick. Again it is of a dark blue Onondaga chert and heat fractures are present at the tip, again indicating heat exposure after discard. The surface of the artifact has parallel-collateral flaking. In transverse section it is lenticular although a slight medial ridge is found on one face formed by the intersecting terminations of the parallel-collateral flaking from each edge. The lateral edges are irregular and exhibit numerous small scars suggestive of use of the edges. The size and morphology of the biface is consistent with a final stage preform for a point of the kind recovered. The quality of the workmanship, the blunted tip, the well-executed surface flaking and the medial ridge formed by lateral flaking which can serve to guide subsequent flute removals, are all very characteristic of Early Paleo-Indian point preforms. The use of such preforms prior to manufacture into finished points has

been reported from a number of fluted point sites in North America (e.g. Dragoo 1973:13; Funk 1973:16; Judge 1973). In this way, maximum use can be made of raw materials which, in the Paleo-Indian case, are often transported some distance from lithic source locations.

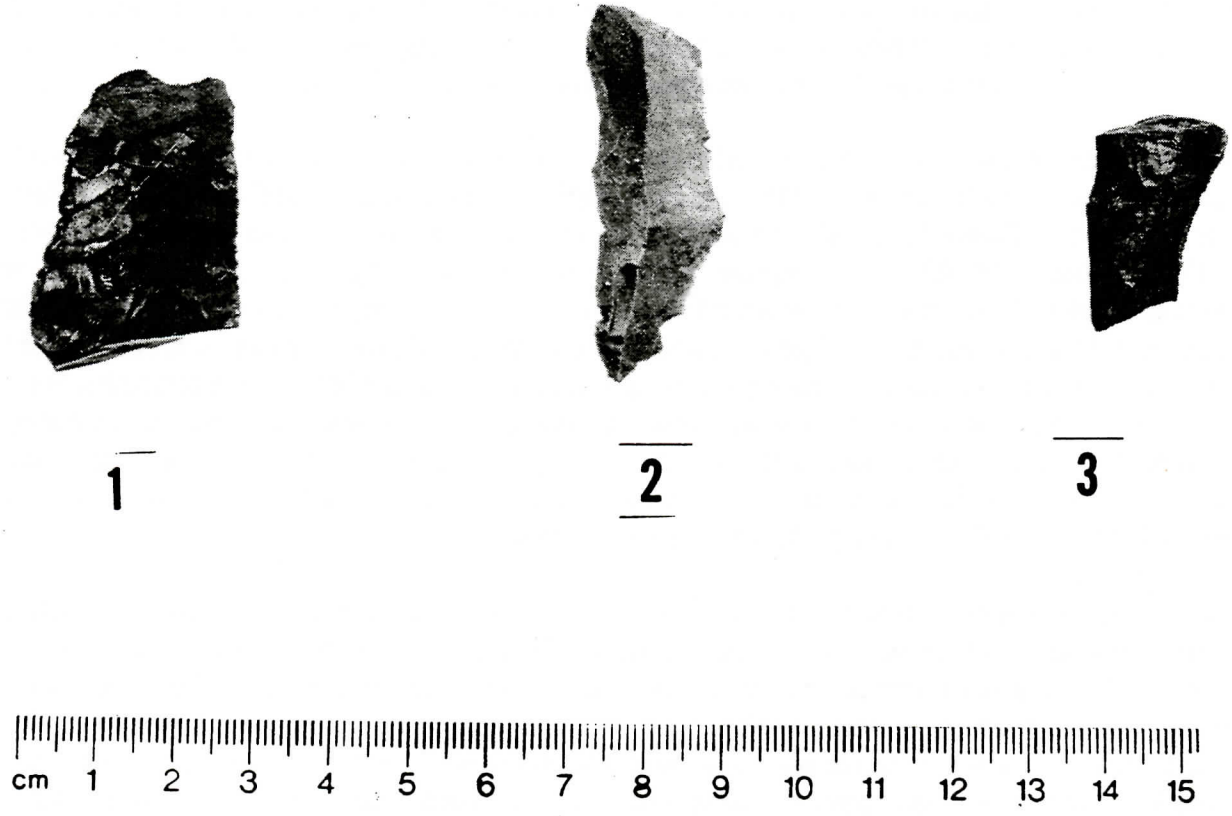

Figure 2: Lithic Artifacts From the Ward Site.

The final surface collected artifact is on a narrow, elongated, blade-like flake which measure 51 mm long by 16 mm wide by 7 mm thick. The proximal end exhibits a steep retouch which forms a slightly canted distal margin in outline and accentuates a steep thick, almost spurred, corner. The lateral edges are irregular, almost denticulated, exhibiting intermittent unifacial retouch on the dorsal surface. There are also two notches, one on each margin opposite from one another, just down from

a pointed distal end. Unlike the previous two artifacts, this item is on a light grey Onondaga chert which is not represented among the other artifacts from the site. A cortex remnant is retained near the steeply beveled end and is a flat cortex suggestive of procurement from a primary outcrop rather than a secondary deposit. Unlike the first two objects, it is not possible to say that this is a Paleo-Indian artifact although it is reminiscent of a recurring class of simple tool which occurs at several Paleo-Indian sites which variously incorporate notches, denticulated working edges and massive spurs or borers (e.g. Deller and Ellis 1992:68, 1996:25; Ellis and Deller 2000:129). However, the paired notches and the irregular lateral retouch in this case might even be hafting modifications. While Paleo-Indian end scrapers with hafting notches are known (e.g. Jackson 1998) I have seen no evidence of such hafting modifications on other kinds of tools from Paleo-Indian sites.

Nine rather amorphous tools were located in the test-pitting and because of their simple nature it is not possible to say with certainty that they are Paleo-Indian. The distribution of these artifact by test-pits is shown on Figure 1. All of these are from the central cluster of units and five are from units 961N/41E and 969N/42E -- the squares which contained the feature. Six are simple used or retouched flakes. Three are core trimming flakes (see below) exhibiting short working edges at the distal end. One also has a small "graver" worked into one lateral edge. However, it is not of the finely chipped variety most commonly reported from Paleo-Indian sites. Of the remaining three simply retouched pieces, one is made on a flake fragment (see below) and shows unifacial working on opposite alternate edges, while another is a core trimming flake with a working edge chipped into the ventral face from the dorsal surface (e.g. with "inverse" retouch). The final retouched flake is a piece of shatter with several chips removed from one edge.

Two of the remaining tools appear to be scraper fragments. One is the very small proximal portion of what may be an end scraper while the other is the lower half, including part of the ventral surface, of the working edge of a scraper. The final artifact is a "graver" made on a sliver of flint. The artifact measures 32 mm long by 11 mm wide by 5 mm thick and is made on a blank which was somewhat triangular in plan outline. At the narrow pointed end of the original blank at least seven very tiny (less than 1 mm wide) flakes have been removed from one lateral edge to accentuate the sharpness of the point and give the appearance of a graver. The nature of the flaking is reminiscent of that seen on Paleo-Indian gravers elsewhere but usually those gravers are made on thin flakes; not on pieces of shatter as is the case here. If this is a Paleo-Indian graver it is unique in form.

FLAKING DEBRIS

In all 447 pieces of Onondaga debitage were recovered and their distribution by the excavated units is also shown on Figure 1. Again, it is pertinent to note that the largest yield is from one metre tst units containing the feature. This debris was sorted into six categories, referred to as core trimming flakes, shatter, flat flakes, retouch flakes, scraper retouch flakes and bifacial flakes. The first category includes 111 larger flakes (larger than 10 mm long, 10 mm wide or one mm thick) which generally possess a striking platform at right-angles to the flake body. However, a few of the larger specimens exhibit more acute-angled platforms. The striking platform is usually unprepared, being plain and

flat with only three exceptions, all with right-angled platforms, which show some platform faceting. The lack of platform preparation, the more obtuse platform angles and general lack of bidirectional scars rule out the possibility these are from biface reduction and their large size rules out a derivation from the retouching or resharpening of unifaces. They appear to be simply flakes produced incidentally to the reduction or more blocky core forms.

The term shatter is derived from Binford and Quimby (1972:347, 364). They postulated that this kind of debris resulted from the "heavy percussion techniques" employed in the early stages of lithic material reduction. This type includes 56 thick, angular specimens lacking platforms and bulbs of percussion. Apparently the lack of platforms is not a result of post detachment collapse or breakage of the specimens.

The third debris type is simply flake fragments. This type includes 264 specimens which lack platforms and are uniformly thin. They have one abrupt fracture margin and are simply the distal and medial portions of broken flakes, the platform portions of which were placed into other types.

Seven flakes were placed into the retouch type. These are small (under 10 mm long, 10 mm wide or one mm thick) flakes exhibiting flat, right-angled platforms. It is possible these are from the retouching of unifacial tools (hence the term "retouch" flake) but they might be simply small flakes produced incidentally to core trimming.

Of the remaining nine flakes, three are uniface retouch flakes produced from the shaping or resharpening of unifacial tool edges (see Jelinek 1966 or Frison 1968 for a description) while six are definitely bifacial retouch flakes exhibiting acute-angled and faceted platforms. Two varieties of these bifacial retouch flakes were noted. Five are small (under 1 mm thick or 10 mm wide) items all of which have a large number of platform facets. Although sample size may be a problem here, this kind of faceting is unusual since at other sites I have worked on, such a preparation appears on only around 60% of the small biface finishing flakes (Ellis and Deller 2000: Table 7.11). Only two of these items exhibit a ground juncture of the striking platform surface and the dorsal surface of the flake. Again, this would be unusual for a Paleo-Indian site as in other collections I have examined the frequency of grinding as platform preparation on small biface reduction flakes exceeds 90% (Deller and Ellis 1992: Table 50; Ellis and Deller 2000: Table 7.11).

The remaining bifacial retouch flake is relatively large (22mm long by 20 mm wide by 3 mm thick). It has sparse faceting on the platform which is suggestive of simply detachment from a bifacial object with scars on each face rather than purposeful preparation. Nonetheless, the platform edge has been ground as purposeful preparation. This specimen is virtually identical to larger items reported from sites such as Parkhill (Ellis 1979b; Ellis and Deller 2000:139-142) and Thedford II (Deller and Ellis 1992:80-81) as biface thinning or biface trimming flakes. In fact, this is the only piece of flaking debris from the site which closely matches debris I have consistently seen at other sites. It is also on a dark blue Onondaga chert identical to that of the definite Paleo-Indian point and preform recovered from the surface by Bill Parkins. As will be discussed below, such darker blue Onondaga chert is rare in the overall Ward debris assemblage. This unique bifacial retouch flake came from the

northernmost test pit (975N/41E).

When encountered, the presence of cortex, a dark blue colouring and potlid scars on the debitage was recorded. Only four pieces exhibiting cortex were noted. All of these were of the shatter type and in all cases it was a worn cortex suggesting the material was form a secondary source, most likely Lake Erie beach cobbles. The vast majority of the debris was a light blue to brownish blue grey in colour. Dark blue was restricted to two pieces of shatter, two core trimming flakes and three flat flakes. All of these items were also heavily heat damaged notably with many potlid scars, and in this respect they contrast with the large flake of bifacial retouch and the two definite Paleo-Indian tools of which but one exhibits but a single potlid scar even though both have heat damage. Dark blue material can most definitely result from heat exposure and this may be why these items are similar. However, there are two heated items in the debris assemblage exhibiting potlids which are not of a dark blue colour: a core trimming flake and a piece of shatter.

To summarize the debitage collection, the low incidence of cortex and the absence of specimens with complete cortical dorsal surfaces indicates the lithic raw material was reduced elsewhere before being brought to the site. The predominance of shatter and core trimming flakes does suggest core reduction (although not the initial core reduction) was carried out at the site. Presumably the goal was to produce larger size blanks which could be reduced to, or used as, tools elsewhere. This interpretation is suggested by the rarity of retouch flakes from tool finishing, the presence of few tools and the relative absence of unfinished tools such as preforms.

CONCLUSIONS

The Ward site has a definitive evidence of use during fluted point times by groups who are believed to be the earliest Paleo-Indians (e.g. the users of relatively large parallel-sided points assignable to Gainey and probably other types). The definitive artifacts are on Onondaga chert as opposed to preferences seen in other areas and this preference is perhaps not unexpected since Onondaga is the major chert used throughout precontact times in the peninsula and is more local to the area.

A major question is whether some or all of the debris and amorphous tools recovered are associated with the Paleo-Indian occupation. The kinds of platform preparation found on the biface flakes is somewhat different than that seen in other Paleo-Indian debris collections. Also, the definite heating after discard of the two undoubted Paleo-Indian tools might be due to factors such as brush fires. The fact little of the debris exhibits such damage, or even a dark blue colour, may suggest it was deposited at a later date after such natural burning occurred on the site and damaged the already in place Paleo-Indian material. At other Paleo-Indian sites there is little suggestion of the use of secondary sources of lithics (e.g. Ellis 1989) which based on the few debris items with cortex recovered was the main kind of source employed at Ward. Also, except for the reduction of biface cores, the evidence from other Paleo-Indian sites suggest that these peoples did the primary manufacturing exclusively at or near lithic sources (Deller and Ellis 1992, 2000; Ellis and Deller 2000). Since the Onondaga material used at Ward is non-local and must have been recovered from

sources much to the south, the presence of core reduction might suggest also that this debris is not Paleo-Indian. The only good definite candidate for Paleo-Indian debris is the larger flake of bifacial retouch which as noted above, was recovered in the northernmost test-unit. Therefore, it may be that the area excavated represents a post-Paleo-Indian occupation and that the main area of Paleo-Indian activity was actually just to the north of the main area tested.

On the other hand, the two Paleo-Indian artifacts could have been burned because unlike debris, they were discarded in hearths. Also, the sample of biface flakes is very small and the differences from other site assemblages may be due simply to sampling error. Finally, it may be questionable to assume at this point that Paleo-Indians always used primary sources (in fact, they did use secondary deposits for expedient tools although most often the sources used in this manner are local to a site; e.g. Ellis and Deller 2000:183-185) or that they never carried out core reduction away from sources. In sum, it is probably most prudent to conclude at this point that we do not know if the debris recovered is Paleo-Indian nor is it possible to say it is not. One must rely on the old chestnut: more work at the site is needed to resolve this problem.

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Item	Expenditures	Revenues	Totals
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London Chapter Memberships & Sale of *Kewa* Back Issues		1,124.40	
Book Publication Sales		795.45	
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Total Revenues		**2,024.85**	☞ **2,024.85**
Kewa Printing (99-7 to 00-6)	806.42		
Postage and Supplies (Envelopes and Labels) for Kewa and Book Sales	648.48		
London Museum of Archaeology Rental	175.00		
Donation to London Community Foundation	100.00		
Transfers to Nick Adams for CD-ROMS Purchased through Chapter	95.50		
Speaker Dinners and Travel	172.47		
Total Debits	**1,997.87**		☞ **1,997.87**
Bank Balance as of January 1, 2000			8,767.75
Revenues for 2000			+2,024.85
Total			10,792.60
Expenditures for 2000			-1,997.87
Book Balance as of December 31, 2000			8,794.73
Bank Balances as of December 31, 2000			8,794.73
Profit for 2000			**$26.98**
Inventory: I-Expo Display System		January 5/01	Chris Ellis

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